



RCRA: Preventive Maintenance for Potential Brownfields

BETHLEHEM STEEL

It is fitting that a site with a such a long and rich history of industrial activity as Bethlehem Steel in Bethlehem, Pennsylvania should one day house the Smithsonian Institution's National Museum of Industrial History. When complete, this new museum will anchor a shopping and entertainment center covering 160 acres of the former steel site, on the banks of the Lehigh River. Over the next 20 years, additional redevelopment projects are planned that will turn the once-eminent industrial facility into a state-of-the-art entertainment and cultural complex. Bethlehem Steel is a classic example of how state and federal cleanup guidelines ensured that the site's contamination levels were held within safe tolerances, and that the quality of cleanup would make the land highly attractive to developers.

The plant dates back to 1857, when it began as a small rail-making operation to support the expanding railroad industry. Bethlehem Steel, established in 1904, eventually became the leading steel supplier to the construction industry. During both World Wars, Bethlehem Steel was a major supplier of armor plate, and during peacetime the company met the demands of the booming construction industry. However, by 1990 the company had become an industrial dinosaur, and in 1995, Bethlehem Steel finally ceased operations.

Like so many other properties in this area of the Lehigh Valley in Northampton County, Bethlehem Steel might have been classified as a "brownfield"—an idle, abandoned or underused property with

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JUST THE FACTS:

- Prior to RCRA, it often made more economic sense for owners to simply abandon their contaminated properties after years of unregulated waste disposal.
- Under RCRA, Bethlehem Steel's owners were required to conduct studies to determine exact levels and areas of contamination, and to take corrective action.
- Plans for the site include a hotel and conference center; a giant, indoor swimming pool; two recreational ice rinks; a multi-screen theater; and retail shops and restaurants.

The Bethlehem Steel property is a classic example of how state and federal cleanup guidelines ensured that the site's contamination levels were held within safe tolerances, and that the quality of cleanup would make the land highly attractive to developers.

EPA's Brownfields Economic Redevelopment Initiative is designed to empower states, communities, and other stakeholders in economic redevelopment to work together in a timely manner to prevent, assess, safely clean up, and sustainably reuse brownfields. A brownfield is a site, or portion thereof, that has actual or perceived contamination and an active potential for redevelopment or reuse. EPA is funding: assessment demonstration pilot programs (each funded up to \$200,000 over two years), to assess brownfields sites and to test cleanup and redevelopment models; job training pilot programs (each funded up to \$200,000 over two years), to provide training for residents of communities affected by brownfields to facilitate cleanup of brownfields sites and prepare trainees for future employment in the environmental field; and, cleanup revolving loan fund programs (each funded up to \$500,000 over five years) to capitalize loan funds to make loans for the environmental cleanup of brownfields. These pilot programs are intended to provide EPA, states, tribes, municipalities, and communities with useful information and strategies as they continue to seek new methods to promote a unified approach to site assessment, environmental cleanup, and redevelopment.

uncertain levels of contamination. In fact, in May 1998 Northampton County was awarded a Brownfields Assessment Pilot from the Environmental Protection Agency (EPA) to create an inventory and conduct assessments on former industrial properties within the valley. But Bethlehem Steel had been operating under guidelines set by the federal Resource Conservation and Recovery Act (RCRA) in 1976; to receive a RCRA permit that allowed the plant's operation, Bethlehem Steel's owners had to demonstrate they were capable of managing and cleaning up hazardous wastes associated with steel production. Established to address the nation's accelerating generation of municipal and industrial solid waste, the RCRA program created a framework for managing waste from its creation to its disposal—a "cradle-to-grave" approach to preventing contamination.

Prior to RCRA, it often made more economic sense for owners to simply abandon their contaminated properties after years of unregulated waste disposal, resulting in a brownfield—or, in some extreme cases—a federal Superfund site. But under RCRA, Bethlehem Steel's owners were required to conduct environmental studies to determine exact levels and areas of contamination, and to take corrective action based on their findings. The property's owners are working with the Pennsylvania Department of Environmental Protection (PADEP) to clean up the site in accordance with the Commonwealth of Pennsylvania's own brownfields law, which sets cleanup standards for former commercial and industrial sites and provides liability releases to property owners that comply. Of the 450 redevelopment projects overseen by the state brownfields law, Bethlehem Steel is the first cleanup where PADEP and EPA have worked together to satisfy state and federal RCRA cleanup requirements with a single plan.

Approximately 375 tons of soil contaminated with arsenic and lead will eventually be removed from the Bethlehem Steel property and taken to permitted landfills. Soil remaining onsite will be capped under the future roads and buildings planned as part of redevelopment. The future entertainment complex planned for the site will include a 200-room hotel and conference center; a giant, indoor swimming pool; two recreational ice rinks; a multi-screen theater; and at least 20 retail shops and restaurants. The Smithsonian's new museum will be located in the interior of one of the old factories and occupy approximately 330,000 square feet. The museum will feature a live-action exhibit entitled the Iron and Steel Showcase, displaying artifacts and information that will provide an interactive education for this bygone era. If not for federal RCRA guidelines and the state's diligence in implementing its own brownfields law, Bethlehem Steel might be just another one of the abandoned industrial sites scattered across the Lehigh Valley. Now, the property will benefit all those involved in its redevelopment, contribute to the state and local economy, and restore the sense of pride and admiration for the steel industry and its workers long absent from the idle site.

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Visit the EPA Brownfields web site at:
<http://www.epa.gov/brownfields/>

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